

WHAT IS CLAIMED IS:

1 1. A radio communication system for communication between
2 a first mobile system and a second mobile system, each of the
3 first and the second mobile systems having a transceiver for
4 receiving and emitting radio signal, the second mobile system
5 comprising:
6 a received signal strength detecting device for detecting a
7 received signal strength of the transceiver in the second
8 mobile system;
9 a power controller for outputting a transmitted power strength
10 status and controlling transmitted power of the
11 transceiver in the second mobile system according to the
12 received signal strength; and
13 an indicating device for receiving the transmitted power
14 strength status and indicating a transmitted RF power
15 strength status of the transceiver in the second mobile
16 system.

1 2. The radio communication system as claimed in claim 1,
2 wherein the power controller comprises a transmitted power
3 calibration device for calibrating the transmitted power of the
4 transceiver.

1 3. The radio communication system as claimed in claim 1,
2 wherein each transceiver has a transmitter and a receiver, the
3 received signal strength is represented as voltage, the power
4 controller comprises a V-I converter to correspondingly
5 converting the received signal strength into supply current to
6 power the transmitter of the second mobile.

1 4. The radio communication system as claimed in claim 3,
2 wherein the power controller comprises a transmitted power
3 calibration device connected in series with the V-I converter
4 to calibrate the supply current for powering the transmitter
5 of the second mobile.

1 5. The radio communication system as claimed in claim 3,
2 wherein the V-I converter is a transistor array comprising
3 P-type MOS transistors, gates of P-type MOS transistors are
4 controlled by the received signal strength.

1 6. The radio communication system as claimed in claim 5,
2 wherein the power controller further comprises a transmitted
3 power calibration device with switches, and each switch is
4 connected in series with a corresponding P-type MOS transistor
5 in the V-I converter to decide whether current is allowed to
6 flow through the corresponding P-type MOS transistor and to
7 power the power the transmitter of the second mobile.

1 7. The radio communication system as claimed in claim 3,
2 wherein the power controller further has a current measurer to
3 measuring the supply current and to correspondingly generate
4 the transmitted power strength status.

1 8. The radio communication system as claimed in claim 7,
2 wherein the current measurer is an analog to digital converter.

1 9. A method for indicating a transmitted signal power level
2 of a PCD, the method comprising the following steps:
3 detecting a received signal strength of a received signal

4 of the PCD;

5 converting the received signal strength into supply
6 current signal to power a transmitter of the PCD;

7 determining a transmitted power strength of the
8 transmitter; and

9 indicating the transmitted power strength via an
10 indicating device in the PCD, whereby an user of the PCD is
11 alerted to RF radiation of the PCD.

1 10. The method as claimed in claim 9, further comprising
2 a step of:
3 calibrating the supply current to modify the transmitted power
4 of the transmitter.

1 11. The method as claimed in claim 10, wherein the supply
2 current is determined by plurality of switches, selectively
3 turned-on or turned-off for the step of calibrating.

1 12. The method as claimed in claim 9, wherein the received
2 signal strength is represented as voltage and the step of
3 converting the received signal strength into the supply current
4 signal is performing a V-I conversion.

1 13. The method as claimed in claim 9, wherein the step of
2 determining the transmitted power strength of the transmitter
3 is performed by detecting the supply current.